

My Engineering Journey

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Beginnings

I have been tinkering with things for as long as I can remember. From taking pens apart to figure out the internal mechanisms, being completely under the thrall of space Lego and trying to make my push bike faster and lighter - learning along the way that the number of spokes in the wheel is quite important!

1992-1996: Strathclyde University

The decision to study a master's degree in Mechanical Engineering was made as I believed it would provide a broader scope of opportunities after graduation. This was proven with the offer of three jobs in different industry sectors upon graduation.

1996-1999: Baker Oil Tools

I chose to join the oil and gas sector and started with Baker Oil Tools as a graduate engineer. Part of the pull was the established MPD Scheme that was running within the company, so I had a structured development programme and was exposed to the different engineering and support functions within the company. This included a four-month international assignment to the Dubai office. Once the initial two years were completed, I went into the design office full-time, designing and testing down hole tools for the upstream oil and gas industry and have never really looked back.

1999-2006: Weatherford

Towards the end of 1999 I moved to Weatherford, still in a design engineer capacity but working more on intervention tools rather than completion tools. It was during this time that I got my first taste of "Intelligent Completions" and was heavily involved in the design of the downhole hydraulic control unit for the system.

After four years, I transferred over to the applications group, acting as an interface between external customers and internal resources, managing the flow of information and assisting the customers with troubleshooting equipment in their wells. A year later, I decided that I preferred designing and went back to that.

2001: IMechE Chartered Engineer Status

Even though I left the accredited MPDS at Baker Oil Tools, I was lucky enough to be able to continue the programme as I only had six months left. That was only possible thanks to my mentor for sticking with me through that period and helping me through to the interview.

2006-2013: Petrowell

I joined Petrowell by chance after meeting an old colleague in a DIY store who told me that they were looking to expand and required lead engineers. I applied and got the job leading a small team of six engineers and draughters, designing downhole valves. This was my first foray into line management whilst still continuing to design tools. One significant highlight from this time was when my team completed the design and verification of a complete subsurface safety valve system from scratch and had it certified to API standards. On a personal level I learned a lot about people, how unpredictable they can be and how I could try to get the best from them as well as meeting project deliverables. At the end of 2012, Petrowell was taken over by Weatherford and I started seeking out a new challenge.

2013-2014: Meta Downhole

I joined Meta as a Principal Engineer responsible for a small group of designers and draughters. After years of designing tools to not break, it was a real mind-melter when I was deliberately taking parts well beyond their limits and intentionally deforming them. This isn't new within

engineering practice but after such a long time of designing conservatively it was quite a challenging and rewarding period.

2014-present: Tendeka

When I joined Tendeka as Engineering Manager, I had a team of one engineer and two draughters performing mostly sustaining work. Over the next few years and during a tough time for the oil and gas industry, the team had grown to a multi-disciplinary team of 12 people including engineers based in Houston, workshop test technicians and chemical polymer specialists all performing a significant amount of R&D. During this time, I became further removed from designing and I'm now more involved with managing people, processes and timelines, ensuring my team has all the required resources they need to perform duties effectively.

I still occasionally get to add my tuppence worth in the design cycle and have taken on more of a mentoring role and sounding board for ideas, passing on my experience to a young and enthusiastic team. I still find it hard to believe that I started in this industry before some of my team were even born! Time has flown and I am still enjoying the challenge of managing people and trying to get the best from them.